

SEQUENCE LISTING

<110> Agensys, Inc.
 Raitano, Arthur B.
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 Challita-Eid, Pia M.
 Ge, Wangmao
 Faris, Mary
 Steven B. Kanner
 Juan J. Perez-Villar

<120> Nucleic Acids and Corresponding Proteins
 Entitled 254P1D6B Useful in Treatment and Detection of
 Cancer

<130> 51158-20081.00

<150> US60/442,526

<151> 2003-01-24

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Glu	Gly	Phe	Val	Asn	Val	Thr	Val	Lys	Pro	Ala	Arg	Arg	Val	Asn	Leu	420	425	430
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Lys	Thr	Ser	Val	Asp	Ser	Pro	Val	Leu	Arg	Leu	Ser	Asn	Leu	Asp	Pro	485	490	495
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Thr	Leu	Asp	Gly	Ser	Arg	Ser	Thr	Asp	Asp	Gln	Arg	Ile	Val	Ser	Tyr	740	745	750
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<212> PRT
<213> Homo sapiens

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 Ser Pro Asn Leu Glu Thr Thr Arg Ile Met Arg Val Ser His Thr Phe
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415 420 425	

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tgc aaa aga caa aaa agg act aaa atc agg aaa aaa aca aag tac acc	3699
Cys Lys Arg Gln Lys Arg Thr Lys Ile Arg Lys Lys Thr Lys Tyr Thr	
975 980 985	
atc ctg gat aac atg gat gaa cag gaa aga atg gaa ctg agg ccc aaa	3747
Ile Leu Asp Asn Met Asp Glu Gln Glu Arg Met Glu Leu Arg Pro Lys	
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tat ggt atc aag cac cga agc aca gag cac aac tcc agc ctg atg gta	3795
Tyr Gly Ile Lys His Arg Ser Thr Glu His Asn Ser Ser Leu Met Val	
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tcc gag tct gag ttt gac agt gac cag gac aca atc ttc agc cga gaa	3843
Ser Glu Ser Glu Phe Asp Ser Asp Gln Asp Thr Ile Phe Ser Arg Glu	
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aag atg gag aga ggg aat cca aag gtt tcc atg aat ggt tcc atc aga	3891
Lys Met Glu Arg Gly Asn Pro Lys Val Ser Met Asn Gly Ser Ile Arg	
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Asn Gly Ala Ser Phe Ser Tyr Cys Ser Lys Asp Arg *	
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acccactcct ttagaatagt tcattgacct tcttccccag tgggtagat gtgtatcccc	4060
acgtactaaa agaccgggtt ttgaaggcac aaaacaaaaa ctttgctcct ttaactgaga	4120
tgcttggttaa tagaaataaa ggctgggttaa aactctaagg tatatactta aaagagtttt	4180
gagtttttgt agctggcaca atctcatatt aaagatgaac aacgatttct atctgtagaa	4240
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<211> 1063
<212> PRT
<213> Homo sapiens

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Thr Ala Ala Cys Cys Asp Leu Ser Ser Cys Asp Leu Ala Trp Trp Phe
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Glu Gly Arg Cys Tyr Leu Val Ser Cys Pro His Lys Glu Asn Cys Glu
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Pro Lys Lys Met Gly Pro Ile Arg Ser Tyr Leu Thr Phe Val Leu Arg
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Pro Val Gln Arg Pro Ala Gln Leu Leu Asp Tyr Gly Asp Met Met Leu
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Asn Arg Gly Ser Pro Ser Gly Ile Trp Gly Asp Ser Pro Glu Asp Ile
115         120         125
Arg Lys Asp Leu Pro Phe Leu Gly Lys Asp Trp Gly Leu Glu Glu Met
130         135         140
Ser Glu Tyr Ser Asp Asp Tyr Arg Glu Leu Glu Lys Asp Leu Leu Gln
145         150         155         160
Pro Ser Gly Lys Gln Glu Pro Arg Gly Ser Ala Glu Tyr Thr Asp Trp
165         170         175
Gly Leu Leu Pro Gly Ser Glu Gly Ala Phe Asn Ser Ser Val Gly Asp
180         185         190
Ser Pro Ala Val Pro Ala Glu Thr Gln Gln Asp Pro Glu Leu His Tyr
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Leu Asn Glu Ser Ala Ser Thr Pro Ala Pro Lys Leu Pro Glu Arg Ser
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Val Leu Leu Pro Leu Pro Thr Thr Pro Ser Ser Gly Glu Val Leu Glu
225         230         235         240
Lys Glu Lys Ala Ser Gln Leu Gln Glu Gln Ser Ser Asn Ser Ser Gly
245         250         255
Lys Glu Val Leu Met Pro Ser His Ser Leu Pro Pro Ala Ser Leu Glu
260         265         270
Leu Ser Ser Val Thr Val Glu Lys Ser Pro Val Leu Thr Val Thr Pro
275         280         285
Gly Ser Thr Glu His Ser Ile Pro Thr Pro Pro Thr Ser Ala Ala Pro
290         295         300

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Thr	Leu	Pro	Asp	Asn	Glu	Val	Glu	Leu	Lys	Ala	Phe	Val	Ala	Pro	Ala
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Pro	Thr	Asp	Tyr	Gln	Gly	Glu	Ile	Lys	Gln	Gly	His	Lys	Gln	Thr	Leu
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Ser	Ser	Glu	Asn	Ala	Phe	Gly	Glu	Gly	Phe	Val	Asn	Val	Thr	Val	Lys
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Gln	Ser	Thr	Asp	Asp	Thr	Glu	Ile	Val	Ser	Tyr	His	Trp	Glu	Glu	Ile
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Thr	Asp	Ser	Asp	Gly	Ala	Thr	Asn	Ser	Thr	Thr	Ala	Ala	Leu	Ile	Val
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Asn	Asn	Ala	Val	Asp	Tyr	Pro	Pro	Val	Ala	Asn	Ala	Gly	Pro	Asn	His
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Thr	Ile	Thr	Leu	Pro	Gln	Asn	Ser	Ile	Thr	Leu	Asn	Gly	Asn	Gln	Ser
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Ser	Asp	Asp	His	Gln	Ile	Val	Leu	Tyr	Glu	Trp	Ser	Leu	Gly	Pro	Gly
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705					710					715					720
Val	Leu	Pro	Asn	Asn	Ser	Ile	Thr	Leu	Asp	Gly	Ser	Arg	Ser	Thr	Asp
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Asp	Gln	Arg	Ile	Val	Ser	Tyr	Leu	Trp	Ile	Arg	Asp	Gly	Gln	Ser	Pro
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Ala	Ala	Gly	Asp	Val	Ile	Asp	Gly	Ser	Asp	His	Ser	Val	Ala	Leu	Gln
		755					760					765			
Leu	Thr	Asn	Leu	Val	Glu	Gly	Val	Tyr	Thr	Phe	His	Leu	Arg	Val	Thr
	770					775					780				
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785					790					795					800
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Val Gly Gln Leu Thr Glu Gln Arg Lys Asp Thr Leu Val Arg Gln Leu
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 Ala Val Leu Leu Asn Val Leu Asp Ser Asp Ile Lys Val Gln Lys Ile
 835 840 845
 Arg Ala His Ser Asp Leu Ser Thr Val Ile Val Phe Tyr Val Gln Ser
 850 855 860
 Arg Pro Pro Phe Lys Val Leu Lys Ala Ala Glu Val Ala Arg Asn Leu
 865 870 875 880
 His Met Arg Leu Ser Lys Glu Lys Ala Asp Phe Leu Leu Phe Lys Val
 885 890 895
 Leu Arg Val Asp Thr Ala Gly Cys Leu Lys Cys Ser Gly His Gly
 900 905 910
 His Cys Asp Pro Leu Thr Lys Arg Cys Ile Cys Ser His Leu Trp Met
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 Glu Asn Leu Ile Gln Arg Tyr Ile Trp Asp Gly Glu Ser Asn Cys Glu
 930 935 940
 Trp Ser Ile Phe Tyr Val Thr Val Leu Ala Phe Thr Leu Ile Val Leu
 945 950 955 960
 Thr Gly Gly Phe Thr Trp Leu Cys Ile Cys Cys Cys Lys Arg Gln Lys
 965 970 975
 Arg Thr Lys Ile Arg Lys Lys Thr Lys Tyr Thr Ile Leu Asp Asn Met
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 1010 1015 1020
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<211> 1072

<212> PRT

<213> Homo sapiens

<400> 8

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 Ser His Thr Phe Pro Val Val Asp Cys Thr Ala Ala Cys Cys Asp Leu
 50 55 60
 Ser Ser Cys Asp Leu Ala Trp Trp Phe Glu Gly Arg Cys Tyr Leu Val
 65 70 75 80
 Ser Cys Pro His Lys Glu Asn Cys Glu Pro Lys Lys Met Gly Pro Ile
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 Arg Ser Tyr Leu Thr Phe Val Leu Arg Pro Val Gln Arg Pro Ala Gln
 100 105 110
 Leu Leu Asp Tyr Gly Asp Met Met Leu Asn Arg Gly Ser Pro Ser Gly
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 Ile Trp Gly Asp Ser Pro Glu Asp Ile Arg Lys Asp Leu Pro Phe Leu
 130 135 140
 Gly Lys Asp Trp Gly Leu Glu Glu Met Ser Glu Tyr Ser Asp Asp Tyr
 145 150 155 160
 Arg Glu Leu Glu Lys Asp Leu Leu Gln Pro Ser Gly Lys Gln Glu Pro
 165 170 175
 Arg Gly Ser Ala Glu Tyr Thr Asp Trp Gly Leu Leu Pro Gly Ser Glu
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Pro	Ala	Pro	Lys	Leu	Pro	Glu	Arg	Ser	Val	Leu	Leu	Pro	Leu	Pro	Thr
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Thr	Pro	Ser	Ser	Gly	Glu	Val	Leu	Glu	Lys	Glu	Lys	Ala	Ser	Gln	Leu
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Tyr	His	Phe	Arg	Leu	Thr	Val	Lys	Asp	Gln	Gln	Gly	Leu	Ser	Ser	Thr
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Ser	Thr	Leu	Thr	Val	Ala	Val	Lys	Lys	Glu	Asn	Asn	Ser	Pro	Pro	Arg
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Asp	Ser	Asp	Ile	Lys	Val	Gln	Lys	Ile	Arg	Ala	His	Ser	Asp	Leu	Ser
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Thr	Val	Ile	Val	Phe	Tyr	Val	Gln	Ser	Arg	Pro	Pro	Phe	Lys	Val	Leu
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Lys	Ala	Ala	Glu	Val	Ala	Arg	Asn	Leu	His	Met	Arg	Leu	Ser	Lys	Glu
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Lys	Ala	Asp	Phe	Leu	Leu	Phe	Lys	Val	Leu	Arg	Val	Asp	Thr	Ala	Gly
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Cys	Leu	Leu	Lys	Cys	Ser	Gly	His	Gly	His	Cys	Asp	Pro	Leu	Thr	Lys
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Arg	Cys	Ile	Cys	Ser	His	Leu	Trp	Met	Glu	Asn	Leu	Ile	Gln	Arg	Tyr
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Val	Leu	Ala	Phe	Thr	Leu	Ile	Val	Leu	Thr	Gly	Gly	Phe	Thr	Trp	Leu
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Cys	Ile	Cys	Cys	Cys	Lys	Arg	Gln	Lys	Arg	Thr	Lys	Ile	Arg	Lys	Lys
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 <212> PRT
 <213> Homo sapiens

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 Ser His Thr Phe Pro Val Val Asp Cys Thr Ala Ala Cys Cys Asp Leu
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 Ser Ser Cys Asp Leu Ala Trp Trp Phe Glu Gly Arg Cys Tyr Leu Val
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Ser	Cys	Pro	His	Lys	Glu	Asn	Cys	Glu	Pro	Lys	Lys	Met	Gly	Pro	Ile	
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Ile	Trp	Gly	Asp	Ser	Pro	Glu	Asp	Ile	Arg	Lys	Asp	Leu	Pro	Phe	Leu	
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Gly	Lys	Asp	Trp	Gly	Leu	Glu	Glu	Met	Ser	Glu	Tyr	Ala	Asp	Asp	Tyr	
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Arg	Glu	Leu	Glu	Lys	Asp	Leu	Leu	Gln	Pro	Ser	Gly	Lys	Gln	Glu	Pro	
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Pro	Ala	Pro	Lys	Leu	Pro	Glu	Arg	Ser	Val	Leu	Leu	Pro	Leu	Pro	Thr	
225					230					235					240	
Thr	Pro	Ser	Ser	Gly	Glu	Val	Leu	Glu	Lys	Glu	Lys	Ala	Ser	Gln	Leu	
			245					250						255		
Gln	Glu	Gln	Ser	Ser	Asn	Ser	Ser	Gly	Lys	Glu	Val	Leu	Met	Pro	Ser	
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His	Ser	Leu	Pro	Pro	Ala	Ser	Leu	Glu	Leu	Ser	Ser	Val	Thr	Val	Glu	
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Lys	Ser	Pro	Val	Leu	Thr	Val	Thr	Pro	Gly	Ser	Thr	Glu	His	Ser	Ile	
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Pro	Thr	Pro	Pro	Thr	Ser	Ala	Ala	Pro	Ser	Glu	Ser	Thr	Pro	Ser	Glu	
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Glu	Leu	Lys	Ala	Phe	Val	Ala	Pro	Ala	Pro	Pro	Val	Glu	Thr	Thr	Tyr	
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Ile	Lys	Gln	Gly	His	Lys	Gln	Thr	Leu	Asn	Leu	Ser	Gln	Leu	Ser	Val	
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Gly	Leu	Tyr	Val	Phe	Lys	Val	Thr	Val	Ser	Ser	Glu	Asn	Ala	Phe	Gly	
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Pro	Pro	Val	Ala	Val	Val	Ser	Pro	Gln	Leu	Gln	Glu	Leu	Thr	Leu	Pro	
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Ile	Val	Ser	Tyr	His	Trp	Glu	Glu	Ile	Asn	Gly	Pro	Phe	Ile	Glu	Glu	
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Lys	Thr	Ser	Val	Asp	Ser	Pro	Val	Leu	Arg	Leu	Ser	Asn	Leu	Asp	Pro	
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Asn	Ser	Thr	Thr	Ala	Ala	Leu	Ile	Val	Asn	Asn	Ala	Val	Asp	Tyr	Pro	
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Ser	Ile	Thr	Leu	Asn	Gly	Asn	Gln	Ser	Ser	Asp	Asp	His	Gln	Ile	Val	
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Leu	Tyr	Glu	Trp	Ser	Leu	Gly	Pro	Gly	Ser	Glu	Gly	Lys	His	Val	Val	
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Met	Gln	Gly	Val	Gln	Thr	Pro	Tyr	Leu	His	Leu	Ser	Ala	Met	Gln	Glu	
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Gly	Asp	Tyr	Thr	Phe	Gln	Leu	Lys	Val	Thr	Asp	Ser	Ser	Arg	Gln	Gln	
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Ser	Thr	Ala	Val	Val	Thr	Val	Ile	Val	Gln	Pro	Glu	Asn	Asn	Arg	Pro	
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Pro	Val	Ala	Val	Ala	Gly	Pro	Asp	Lys	Glu	Leu	Ile	Phe	Pro	Val	Glu	
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Ser	Ala	Thr	Leu	Asp	Gly	Ser	Ser	Ser	Ser	Asp	Asp	His	Gly	Ile	Val	
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Phe	Tyr	His	Trp	Glu	His	Val	Arg	Gly	Pro	Ser	Ala	Val	Glu	Met	Glu	
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Asn	Ile	Asp	Lys	Ala	Ile	Ala	Thr	Val	Thr	Gly	Leu	Gln	Val	Gly	Thr	
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Tyr	His	Phe	Arg	Leu	Thr	Val	Lys	Asp	Gln	Gln	Gly	Leu	Ser	Ser	Thr	
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Ala	Arg	Ala	Gly	Gly	Arg	His	Val	Leu	Val	Leu	Pro	Asn	Asn	Ser	Ile	
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Thr	Leu	Asp	Gly	Ser	Arg	Ser	Thr	Asp	Asp	Gln	Arg	Ile	Val	Ser	Tyr	
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Leu	Trp	Ile	Arg	Asp	Gly	Gln	Ser	Pro	Ala	Ala	Gly	Asp	Val	Ile	Asp	
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Thr	Asp	Thr	Ala	Thr	Val	Glu	Val	Gln	Pro	Asp	Pro	Arg	Lys	Ser	Gly	
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Arg	Lys	Asp	Thr	Leu	Val	Arg	Gln	Leu	Ala	Val	Leu	Leu	Asn	Val	Leu	
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Asp	Ser	Asp	Ile	Lys	Val	Gln	Lys	Ile	Arg	Ala	His	Ser	Asp	Leu	Ser	
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Lys	Ala	Ala	Glu	Val	Ala	Arg	Asn	Leu	His	Met	Arg	Leu	Ser	Lys	Glu	
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Lys	Ala	Asp	Phe	Leu	Leu	Phe	Lys	Val	Leu	Arg	Val	Asp	Thr	Ala	Gly	
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Cys	Leu	Leu	Lys	Cys	Ser	Gly	His	Gly	His	Cys	Asp	Pro	Leu	Thr	Lys	
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Thr	Thr	Arg	Ile	Met	Arg	Val	Ser	His	Thr	Phe	Pro	Val	Val	Asp	Cys
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Thr	Ala	Ala	Cys	Cys	Asp	Leu	Ser	Ser	Cys	Asp	Leu	Ala	Trp	Trp	Phe
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Asn	Arg	Gly	Ser	Pro	Ser	Gly	Ile	Trp	Gly	Asp	Ser	Pro	Glu	Asp	Ile
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Arg	Lys	Asp	Leu	Pro	Phe	Leu	Gly	Lys	Asp	Trp	Gly	Leu	Glu	Glu	Met
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Pro	Ser	Gly	Lys	Gln	Glu	Pro	Arg	Gly	Ser	Ala	Glu	Tyr	Thr	Asp	Trp
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Gly	Leu	Leu	Pro	Gly	Ser	Glu	Gly	Ala	Phe	Asn	Ser	Ser	Val	Gly	Asp
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Ser	Pro	Ala	Val	Pro	Ala	Glu	Thr	Gln	Gln	Asp	Pro	Glu	Leu	His	Tyr
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Thr	Asp	Ser	Asp	Gly	Ala	Thr	Asn	Ser	Thr	Thr	Ala	Ala	Leu	Ile	Val		
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Thr	Ile	Thr	Leu	Pro	Gln	Asn	Ser	Ile	Thr	Leu	Asn	Gly	Asn	Gln	Ser		
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His	Leu	Ser	Ala	Met	Gln	Glu	Gly	Asp	Tyr	Thr	Phe	Gln	Leu	Lys	Val		
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Thr	Asp	Ser	Ser	Arg	Gln	Gln	Ser	Thr	Ala	Val	Val	Thr	Val	Ile	Val		
		595					600					605					
Gln	Pro	Glu	Asn	Asn	Arg	Pro	Pro	Val	Ala	Val	Ala	Gly	Pro	Asp	Lys		
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Ser	Asp	Asp	His	Gly	Ile	Val	Phe	Tyr	His	Trp	Glu	His	Val	Arg	Gly		
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	675					680						685					
Gln	Gln	Gly	Leu	Ser	Ser	Thr	Ser	Thr	Leu	Thr	Val	Ala	Val	Lys	Lys		
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Glu	Asn	Asn	Ser	Pro	Pro	Arg	Ala	Arg	Ala	Gly	Gly	Arg	His	Val	Leu		
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Val	Leu	Pro	Asn	Asn	Ser	Ile	Thr	Leu	Asp	Gly	Ser	Arg	Ser	Thr	Asp		
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Asp	Gln	Arg	Ile	Val	Ser	Tyr	Leu	Trp	Ile	Arg	Asp	Gly	Gln	Ser	Pro		
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Ala	Ala	Gly	Asp	Val	Ile	Asp	Gly	Ser	Asp	His	Ser	Val	Ala	Leu	Gln		
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Leu	Thr	Asn	Leu	Val	Glu	Gly	Val	Tyr	Thr	Phe	His	Leu	Arg	Val	Thr		
	770					775					780						
Asp	Ser	Gln	Gly	Ala	Ser	Asp	Thr	Asp	Thr	Ala	Thr	Val	Glu	Val	Gln		
785					790					795					800		
Pro	Asp	Pro	Arg	Lys	Ser	Gly	Leu	Val	Glu	Leu	Thr	Leu	Gln	Val	Gly		
			805					810					815				
Val	Gly	Gln	Leu	Thr	Glu	Gln	Arg	Lys	Asp	Thr	Leu	Val	Arg	Gln	Leu		
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Arg	Ala	His	Ser	Asp	Leu	Ser	Thr	Val	Ile	Val	Phe	Tyr	Val	Gln	Ser		
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Arg	Pro	Pro	Phe	Lys	Val	Leu	Lys	Ala	Ala	Glu	Val	Ala	Arg	Asn	Leu		
865					870					875					880		
His	Met	Arg	Leu	Ser	Lys	Glu	Lys	Ala	Asp	Phe	Leu	Leu	Phe	Lys	Val		
			885						890					895			
Leu	Arg	Val	Asp	Thr	Ala	Gly	Cys	Leu	Lys	Cys	Ser	Gly	His	Gly			
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Glu	Asn	Leu	Ile	Gln	Arg	Tyr	Ile	Trp	Asp	Gly	Glu	Ser	Asn	Cys	Glu		
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Trp	Ser	Ile	Phe	Tyr	Val	Thr	Val	Leu	Ala	Phe	Thr	Leu	Ile	Val	Leu		
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Thr	Gly	Gly	Phe	Thr	Trp	Leu	Cys	Ile	Cys	Cys	Cys	Lys	Arg	Gln	Lys		
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			980					985					990				

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 Arg Ser Thr Glu His Asn Ser Ser Leu Met Val Ser Glu Ser Glu Phe
 1010 1015 1020
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 <212> PRT
 <213> Homo sapiens

<400> 11
 Met Ala Pro Pro Thr Gly Val Leu Ser Ser Leu Leu Leu Leu Val Thr
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 Ser His Thr Phe Pro Val Val Asp Cys Thr Ala Ala Cys Cys Asp Leu
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 Ser Cys Pro His Lys Glu Asn Cys Glu Pro Lys Lys Met Gly Pro Ile
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 Arg Ser Tyr Leu Thr Phe Val Leu Arg Pro Val Gln Arg Pro Ala Gln
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 Leu Leu Asp Tyr Gly Asp Met Met Leu Asn Arg Gly Ser Pro Ser Gly
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 Gly Lys Asp Trp Gly Leu Glu Glu Met Ser Glu Tyr Ser Asp Asp Tyr
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 Arg Glu Leu Glu Lys Asp Leu Leu Gln Pro Ser Gly Lys Gln Glu Pro
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 Arg Gly Ser Ala Glu Tyr Thr Asp Trp Gly Leu Leu Pro Gly Ser Glu
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 Gly Ala Phe Asn Ser Ser Val Gly Asp Ser Pro Ala Val Pro Ala Glu
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 Thr Gln Gln Asp Pro Glu Leu His Tyr Leu Asn Glu Ser Ala Ser Thr
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 Pro Ala Pro Lys Leu Pro Glu Arg Ser Val Leu Leu Pro Leu Pro Thr
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 Thr Pro Ser Ser Gly Glu Val Leu Glu Lys Glu Lys Ala Ser Gln Leu
 245 250 255
 Gln Glu Gln Ser Ser Asn Ser Ser Gly Lys Glu Val Leu Met Pro Ser
 260 265 270
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 Lys Ser Pro Val Leu Thr Val Thr Pro Gly Ser Thr Glu His Ser Ile
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 Pro Thr Pro Pro Thr Ser Ala Ala Pro Ser Glu Ser Thr Pro Ser Glu
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 Leu Pro Ile Ser Pro Thr Thr Ala Pro Arg Thr Val Lys Glu Leu Thr
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 Val Ser Ala Gly Asp Asn Leu Ile Ile Thr Leu Pro Asp Asn Glu Val
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 Glu Leu Lys Ala Phe Val Ala Pro Ala Pro Pro Val Glu Thr Thr Tyr
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Asn	Tyr	Glu	Trp	Asn	Leu	Ile	Ser	His	Pro	Thr	Asp	Tyr	Gln	Gly	Glu	
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Ile	Lys	Gln	Gly	His	Lys	Gln	Thr	Leu	Asn	Leu	Ser	Gln	Leu	Ser	Val	
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Ser	Ala	Thr	Leu	Asp	Gly	Ser	Ser	Ser	Ser	Asp	Asp	His	Gly	Ile	Val	
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Phe	Tyr	His	Trp	Glu	His	Val	Arg	Gly	Pro	Ser	Ala	Val	Glu	Met	Glu	
			660					665					670			
Asn	Ile	Asp	Lys	Ala	Ile	Ala	Thr	Val	Thr	Gly	Leu	Gln	Val	Gly	Thr	
		675					680					685				
Tyr	His	Phe	Arg	Leu	Thr	Val	Lys	Asp	Gln	Gln	Gly	Leu	Ser	Ser	Thr	
		690				695					700					
Ser	Thr	Leu	Thr	Val	Ala	Val	Lys	Lys	Glu	Asn	Ser	Pro	Pro	Arg		
705					710					715				720		
Ala	Arg	Ala	Gly	Gly	Arg	His	Val	Leu	Val	Leu	Pro	Asn	Asn	Ser	Ile	
			725						730					735		
Thr	Leu	Asp	Gly	Ser	Arg	Ser	Thr	Asp	Asp	Gln	Arg	Ile	Val	Ser	Tyr	
			740					745					750			
Leu	Trp	Ile	Arg	Asp	Gly	Gln	Ser	Pro	Ala	Ala	Gly	Asp	Val	Ile	Asp	
		755				760						765				
Gly	Ser	Asp	His	Ser	Val	Ala	Leu	Gln	Leu	Thr	Asn	Leu	Val	Glu	Gly	
		770				775					780					
Val	Tyr	Thr	Phe	His	Leu	Arg	Val	Thr	Asp	Ser	Gln	Gly	Ala	Ser	Asp	
785					790					795					800	
Thr	Asp	Thr	Ala	Thr	Val	Glu	Val	Gln	Pro	Asp	Pro	Arg	Lys	Ser	Gly	
			805						810					815		
Leu	Val	Glu	Leu	Thr	Leu	Gln	Val	Gly	Val	Gly	Gln	Leu	Thr	Glu	Gln	
			820					825					830			
Arg	Lys	Asp	Thr	Leu	Val	Arg	Gln	Leu	Ala	Val	Leu	Leu	Asn	Val	Leu	
		835					840					845				
Asp	Ser	Asp	Ile	Lys	Val	Gln	Lys	Ile	Arg	Ala	His	Ser	Asp	Leu	Ser	
		850				855					860					
Thr	Val	Ile	Val	Phe	Tyr	Val	Gln	Ser	Arg	Pro	Pro	Phe	Lys	Val	Leu	
865					870					875					880	

Lys	Ala	Ala	Glu	Val	Ala	Arg	Asn	Leu	His	Met	Arg	Leu	Ser	Lys	Glu
			885						890					895	
Lys	Ala	Asp	Phe	Leu	Leu	Phe	Lys	Val	Leu	Arg	Val	Asp	Thr	Ala	Gly
		900						905					910		
Cys	Leu	Leu	Lys	Cys	Ser	Gly	His	Gly	His	Cys	Asp	Pro	Leu	Thr	Lys
	915						920					925			
Arg	Cys	Ile	Cys	Ser	His	Leu	Trp	Met	Glu	Asn	Leu	Ile	Gln	Arg	Tyr
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Ile	Trp	Asp	Gly	Glu	Ser	Asn	Cys	Glu	Trp	Ser	Ile	Phe	Tyr	Val	Thr
945					950					955					960
Val	Leu	Ala	Phe	Thr	Leu	Ile	Val	Leu	Thr	Gly	Gly	Phe	Thr	Trp	Leu
			965						970					975	
Cys	Ile	Cys	Cys	Cys	Lys	Arg	Gln	Lys	Arg	Thr	Lys	Ile	Arg	Lys	Lys
		980						985					990		
Thr	Lys	Tyr	Thr	Ile	Leu	Asp	Asn	Met	Asp	Glu	Gln	Glu	Arg	Met	Glu
	995						1000					1005			
Leu	Arg	Pro	Lys	Tyr	Gly	Ile	Lys	His	Arg	Ser	Thr	Glu	His	Asn	Ser
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Phe	Ser	Arg	Glu	Lys	Met	Glu	Arg	Gly	Asn	Pro	Lys	Val	Ser	Met	Asn
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Asn	Ala	Val	Ile	Ser	Pro	Asn	Leu	Glu	Thr	Thr	Arg	Ile	Met	Arg	Val
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Ser	His	Thr	Phe	Pro	Val	Val	Asp	Cys	Thr	Ala	Ala	Cys	Cys	Asp	Leu
	50					55				60					
Ser	Ser	Cys	Asp	Leu	Ala	Trp	Trp	Phe	Glu	Gly	Arg	Cys	Tyr	Leu	Val
65				70					75					80	
Ser	Cys	Pro	His	Lys	Glu	Asn	Cys	Glu	Pro	Lys	Lys	Met	Gly	Pro	Ile
			85					90						95	
Arg	Ser	Tyr	Leu	Thr	Phe	Val	Leu	Arg	Pro	Val	Gln	Arg	Pro	Ala	Gln
		100					105					110			
Leu	Leu	Asp	Tyr	Gly	Asp	Met	Met	Leu	Asn	Arg	Gly	Ser	Pro	Ser	Gly
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Ile	Trp	Gly	Asp	Ser	Pro	Glu	Asp	Ile	Arg	Lys	Asp	Leu	Pro	Phe	Leu
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Gly	Lys	Asp	Trp	Gly	Leu	Glu	Glu	Met	Ser	Glu	Tyr	Ala	Asp	Asp	Tyr
145					150					155					160
Arg	Glu	Leu	Glu	Lys	Asp	Leu	Leu	Gln	Pro	Ser	Gly	Lys	Gln	Glu	Pro
			165					170						175	
Arg	Gly	Ser	Ala	Glu	Tyr	Thr	Asp	Trp	Gly	Leu	Leu	Pro	Gly	Ser	Glu
		180					185						190		
Gly	Ala	Phe	Asn	Ser	Ser	Val	Gly	Asp	Ser	Pro	Ala	Val	Pro	Ala	Glu
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Thr	Gln	Gln	Asp	Pro	Glu	Leu	His	Tyr	Leu	Asn	Glu	Ser	Ala	Ser	Thr
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Pro	Ala	Pro	Lys	Leu	Pro	Glu	Arg	Ser	Val	Leu	Leu	Pro	Leu	Pro	Thr
225				230						235					240
Thr	Pro	Ser	Ser	Gly	Glu	Val	Leu	Glu	Lys	Glu	Lys	Ala	Ser	Gln	Leu
			245					250						255	

Gln	Glu	Gln	Ser	Ser	Asn	Ser	Ser	Gly	Lys	Glu	Val	Leu	Met	Pro	Ser	
			260					265					270			
His	Ser	Leu	Pro	Pro	Ala	Ser	Leu	Glu	Leu	Ser	Ser	Val	Thr	Val	Glu	
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Lys	Ser	Pro	Val	Leu	Thr	Val	Thr	Pro	Gly	Ser	Thr	Glu	His	Ser	Ile	
	290					295					300					
Pro	Thr	Pro	Pro	Thr	Ser	Ala	Ala	Pro	Ser	Glu	Ser	Thr	Pro	Ser	Glu	
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Leu	Pro	Ile	Ser	Pro	Thr	Thr	Ala	Pro	Arg	Thr	Val	Lys	Glu	Leu	Thr	
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Val	Ser	Ala	Gly	Asp	Asn	Leu	Ile	Ile	Thr	Leu	Pro	Asp	Asn	Glu	Val	
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Glu	Leu	Lys	Ala	Phe	Val	Ala	Pro	Ala	Pro	Pro	Val	Glu	Thr	Thr	Tyr	
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Asn	Tyr	Glu	Trp	Asn	Leu	Ile	Ser	His	Pro	Thr	Asp	Tyr	Gln	Gly	Glu	
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Ile	Lys	Gln	Gly	His	Lys	Gln	Thr	Leu	Asn	Leu	Ser	Gln	Leu	Ser	Val	
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Gly	Leu	Tyr	Val	Phe	Lys	Val	Thr	Val	Ser	Ser	Glu	Asn	Ala	Phe	Gly	
				405					410					415		
Glu	Gly	Phe	Val	Asn	Val	Thr	Val	Lys	Pro	Ala	Arg	Arg	Val	Asn	Leu	
			420					425					430			
Pro	Pro	Val	Ala	Val	Val	Ser	Pro	Gln	Leu	Gln	Glu	Leu	Thr	Leu	Pro	
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	450					455					460					
Ile	Val	Ser	Tyr	His	Trp	Glu	Glu	Ile	Asn	Gly	Pro	Phe	Ile	Glu	Glu	
465					470					475					480	
Lys	Thr	Ser	Val	Asp	Ser	Pro	Val	Leu	Arg	Leu	Ser	Asn	Leu	Asp	Pro	
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				565					570					575		
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			580					585					590			
Gly	Asp	Tyr	Thr	Phe	Gln	Leu	Lys	Val	Thr	Asp	Ser	Ser	Arg	Gln	Gln	
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Ser	Thr	Ala	Val	Val	Thr	Val	Ile	Val	Gln	Pro	Glu	Asn	Asn	Arg	Pro	
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Pro	Val	Ala	Val	Ala	Gly	Pro	Asp	Lys	Glu	Leu	Ile	Phe	Pro	Val	Glu	
625					630					635					640	
Ser	Ala	Thr	Leu	Asp	Gly	Ser	Ser	Ser	Ser	Asp	Asp	His	Gly	Ile	Val	
				645					650					655		
Phe	Tyr	His	Trp	Glu	His	Val	Arg	Gly	Pro	Ser	Ala	Val	Glu	Met	Glu	
			660					665					670			
Asn	Ile	Asp	Lys	Ala	Ile	Ala	Thr	Val	Thr	Gly	Leu	Gln	Val	Gly	Thr	
		675					680					685				
Tyr	His	Phe	Arg	Leu	Thr	Val	Lys	Asp	Gln	Gln	Gly	Leu	Ser	Ser	Thr	
		690				695					700					
Ser	Thr	Leu	Thr	Val	Ala	Val	Lys	Lys	Glu	Asn	Asn	Ser	Pro	Pro	Arg	
705					710					715					720	
Ala	Arg	Ala	Gly	Gly	Arg	His	Val	Leu	Val	Leu	Pro	Asn	Asn	Ser	Ile	
				725						730				735		
Thr	Leu	Asp	Gly	Ser	Arg	Ser	Thr	Asp	Asp	Gln	Arg	Ile	Val	Ser	Tyr	
			740					745					750			
Leu	Trp	Ile	Arg	Asp	Gly	Gln	Ser	Pro	Ala	Ala	Gly	Asp	Val	Ile	Asp	
		755					760					765				

Gly Ser Asp His Ser Val Ala Leu Gln Leu Thr Asn Leu Val Glu Gly
 770 775 780
 Val Tyr Thr Phe His Leu Arg Val Thr Asp Ser Gln Gly Ala Ser Asp
 785 790 795 800
 Thr Asp Thr Ala Thr Val Glu Val Gln Pro Asp Pro Arg Lys Ser Gly
 805 810 815
 Leu Val Glu Leu Thr Leu Gln Val Gly Val Gly Gln Leu Thr Glu Gln
 820 825 830
 Arg Lys Asp Thr Leu Val Arg Gln Leu Ala Val Leu Leu Asn Val Leu
 835 840 845
 Asp Ser Asp Ile Lys Val Gln Lys Ile Arg Ala His Ser Asp Leu Ser
 850 855 860
 Thr Val Ile Val Phe Tyr Val Gln Ser Arg Pro Pro Phe Lys Val Leu
 865 870 875 880
 Lys Ala Ala Glu Val Ala Arg Asn Leu His Met Arg Leu Ser Lys Glu
 885 890 895
 Lys Ala Asp Phe Leu Leu Phe Lys Val Leu Arg Val Asp Thr Ala Gly
 900 905 910
 Cys Leu Leu Lys Cys Ser Gly His Gly His Cys Asp Pro Leu Thr Lys
 915 920 925
 Arg Cys Ile Cys Ser His Leu Trp Met Glu Asn Leu Ile Gln Arg Tyr
 930 935 940
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 945 950 955 960
 Val Leu Ala Phe Thr Leu Ile Val Leu Thr Gly Gly Phe Thr Trp Leu
 965 970 975
 Cys Ile Cys Cys Lys Arg Gln Lys Arg Thr Lys Ile Arg Lys Lys
 980 985 990
 Thr Lys Tyr Thr Ile Leu Asp Asn Met Asp Glu Gln Glu Arg Met Glu
 995 1000 1005
 Leu Arg Pro Lys Tyr Gly Ile Lys His Arg Ser Thr Glu His Asn Ser
 1010 1015 1020
 Ser Leu Met Val Ser Glu Ser Glu Phe Asp Ser Asp Gln Asp Thr Ile
 1025 1030 1035 1040
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 Arg Gly Ser Ala Glu Tyr Thr Asp Trp Gly Leu Leu Pro Gly Ser Glu
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 Gly Ala Phe Asn Ser Ser Val Gly Asp Ser Pro Ala Val Pro Ala Glu
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 Thr Gln Gln Asp Pro Glu Leu His Tyr Leu Asn Glu Ser Ala Ser Thr
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 Pro Ala Pro Lys Leu Pro Glu Arg Ser Val Leu Leu Pro Leu Pro Thr

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Pro	Thr	Pro	Pro	Thr	Ser	Ala	Ala	Pro	Ser	Glu	Ser	Thr	Pro	Ser	Glu	
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 <212> PRT
 <213> Homo sapiens

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Thr Thr Arg Ile Met Arg Val Ser His Thr Phe Pro Val Val Asp Cys
          35          40          45
Thr Ala Ala Cys Cys Asp Leu Ser Ser Cys Asp Leu Ala Trp Trp Phe
          50          55          60
Glu Gly Arg Cys Tyr Leu Val Ser Cys Pro His Lys Glu Asn Cys Glu
65          70          75          80
Pro Lys Lys Met Gly Pro Ile Arg Ser Tyr Leu Thr Phe Val Leu Arg
          85          90          95
Pro Val Gln Arg Pro Ala Gln Leu Leu Asp Tyr Gly Asp Met Met Leu
          100          105          110
Asn Arg Gly Ser Pro Ser Gly Ile Trp Gly Asp Ser Pro Glu Asp Ile
          115          120          125
Arg Lys Asp Leu Pro Phe Leu Gly Lys Asp Trp Gly Leu Glu Glu Met
          130          135          140
Ser Glu Tyr Ser Asp Asp Tyr Arg Glu Leu Glu Lys Asp Leu Leu Gln
145          150          155          160
Pro Ser Gly Lys Gln Glu Pro Arg Gly Ser Ala Glu Tyr Thr Asp Trp
          165          170          175
Gly Leu Leu Pro Gly Ser Glu Gly Ala Phe Asn Ser Ser Val Gly Asp
          180          185          190
Ser Pro Ala Val Pro Ala Glu Thr Gln Gln Asp Pro Glu Leu His Tyr
          195          200          205
Leu Asn Glu Ser Ala Ser Thr Pro Ala Pro Lys Leu Pro Glu Arg Ser
          210          215          220
Val Leu Leu Pro Leu Pro Thr Thr Pro Ser Ser Gly Glu Val Leu Glu
225          230          235          240
Lys Glu Lys Ala Ser Gln Leu Gln Glu Gln Ser Ser Asn Ser Ser Gly
          245          250          255
Lys Glu Val Leu Met Pro Ser His Ser Leu Pro Pro Ala Ser Leu Glu
          260          265          270
Leu Ser Ser Val Thr Val Glu Lys Ser Pro Val Leu Thr Val Thr Pro
          275          280          285
Gly Ser Thr Glu His Ser Ile Pro Thr Pro Pro Thr Ser Ala Ala Pro
          290          295          300
Ser Glu Ser Thr Pro Ser Glu Leu Pro Ile Ser Pro Thr Thr Ala Pro
305          310          315          320
Arg Thr Val Lys Glu Leu Thr Val Ser Ala Gly Asp Asn Leu Ile Ile
          325          330          335
Thr Leu Pro Asp Asn Glu Val Glu Leu Lys Ala Phe Val Ala Pro Ala
          340          345          350
Pro Pro Val Glu Thr Thr Tyr Asn Tyr Glu Trp Asn Leu Ile Ser His
          355          360          365
Pro Thr Asp Tyr Gln Gly Glu Ile Lys Gln Gly His Lys Gln Thr Leu

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370	Asn	Leu	Ser	Gln	Leu	Ser	Val	Gly	Leu	Tyr	Val	Phe	Lys	Val	Thr	Val
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	Pro	Ala	Arg	Arg	Val	Asn	Leu	Pro	Pro	Val	Ala	Val	Val	Ser	Pro	Gln
				420					425						430	
	Leu	Gln	Glu	Leu	Thr	Leu	Pro	Leu	Thr	Ser	Ala	Leu	Ile	Asp	Gly	Ser
			435					440					445			
	Gln	Ser	Thr	Asp	Asp	Thr	Glu	Ile	Val	Ser	Tyr	His	Trp	Glu	Glu	Ile
		450				455					460					
	Asn	Gly	Pro	Phe	Ile	Glu	Glu	Lys	Thr	Ser	Val	Asp	Ser	Pro	Val	Leu
465						470					475					480
	Arg	Leu	Ser	Asn	Leu	Asp	Pro	Gly	Asn	Tyr	Ser	Phe	Arg	Leu	Thr	Val
				485						490						495
	Thr	Asp	Ser	Asp	Gly	Ala	Thr	Asn	Ser	Thr	Thr	Ala	Ala	Leu	Ile	Val
				500					505						510	
	Asn	Asn	Ala	Val	Asp	Tyr	Pro	Pro	Val	Ala	Asn	Ala	Gly	Pro	Asn	His
			515					520					525			
	Thr	Ile	Thr	Leu	Pro	Gln	Asn	Ser	Ile	Thr	Leu	Asn	Gly	Asn	Gln	Ser
		530				535						540				
	Ser	Asp	Asp	His	Gln	Ile	Val	Leu	Tyr	Glu	Trp	Ser	Leu	Gly	Pro	Gly
545						550					555					560
	Ser	Glu	Gly	Lys	His	Val	Val	Met	Gln	Gly	Val	Gln	Thr	Pro	Tyr	Leu
				565						570						575
	His	Leu	Ser	Ala	Met	Gln	Glu	Gly	Asp	Tyr	Thr	Phe	Gln	Leu	Lys	Val
			580						585					590		
	Thr	Asp	Ser	Ser	Arg	Gln	Gln	Ser	Thr	Ala	Val	Val	Thr	Val	Ile	Val
		595						600					605			
	Gln	Pro	Glu	Asn	Asn	Arg	Pro	Pro	Val	Ala	Val	Ala	Gly	Pro	Asp	Lys
		610				615						620				
	Glu	Leu	Ile	Phe	Pro	Val	Glu	Ser	Ala	Thr	Leu	Asp	Gly	Ser	Ser	Ser
625						630					635					640
	Ser	Asp	Asp	His	Gly	Ile	Val	Phe	Tyr	His	Trp	Glu	His	Val	Arg	Gly
				645						650					655	
	Pro	Ser	Ala	Val	Glu	Met	Glu	Asn	Ile	Asp	Lys	Ala	Ile	Ala	Thr	Val
			660						665					670		
	Thr	Gly	Leu	Gln	Val	Gly	Thr	Tyr	His	Phe	Arg	Leu	Thr	Val	Lys	Asp
		675					680						685			
	Gln	Gln	Gly	Leu	Ser	Ser	Thr	Ser	Thr	Leu	Thr	Val	Ala	Val	Lys	Lys
		690					695					700				
	Glu	Asn	Asn	Ser	Pro	Pro	Arg	Ala	Arg	Ala	Gly	Gly	Arg	His	Val	Leu
705						710					715					720
	Val	Leu	Pro	Asn	Asn	Ser	Ile	Thr	Leu	Asp	Gly	Ser	Arg	Ser	Thr	Asp
				725						730					735	
	Asp	Gln	Arg	Ile	Val	Ser	Tyr	Leu	Trp	Ile	Arg	Asp	Gly	Gln	Ser	Pro
			740						745					750		
	Ala	Ala	Gly	Asp	Val	Ile	Asp	Gly	Ser	Asp	His	Ser	Val	Ala	Leu	Gln
			755					760					765			
	Leu	Thr	Asn	Leu	Val	Glu	Gly	Val	Tyr	Thr	Phe	His	Leu	Arg	Val	Thr
		770					775					780				
	Asp	Ser	Gln	Gly	Ala	Ser	Asp	Thr	Asp	Thr	Ala	Thr	Val	Glu	Val	Gln
785						790					795					800
	Pro	Asp	Pro	Arg	Lys	Ser	Gly	Leu	Val	Glu	Leu	Thr	Leu	Gln	Val	Gly
				805						810					815	
	Val	Gly	Gln	Leu	Thr	Glu	Gln	Arg	Lys	Asp	Thr	Leu	Val	Arg	Gln	Leu
			820						825					830		
	Ala	Val	Leu	Asn	Val	Leu	Asp	Ser	Asp	Ile	Lys	Val	Gln	Lys	Ile	
			835					840					845			
	Arg	Ala	His	Ser	Asp	Leu	Ser	Thr	Val	Ile	Val	Phe	Tyr	Val	Gln	Ser
		850					855					860				
	Arg	Pro	Pro	Phe	Lys	Val	Leu	Lys	Ala	Ala	Glu	Val	Ala	Arg	Asn	Leu
865						870					875					880
	His	Met	Arg	Leu	Ser	Lys	Glu	Lys	Ala	Asp	Phe	Leu	Leu	Phe	Lys	Val

Val	Leu	Thr	Val	Thr	Pro	Gly	Ser	Thr	Glu	His	Ser	Ile	Pro	Thr	Pro
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Pro	Thr	Ser	Ala	Ala	Pro	Ser	Glu	Ser	Thr	Pro	Ser	Glu	Leu	Pro	Ile
	290					295					300				
Ser	Pro	Thr	Thr	Ala	Pro	Arg	Thr	Val	Lys	Glu	Leu	Thr	Val	Ser	Ala
305					310					315					320
Gly	Asp	Asn	Leu	Ile	Ile	Thr	Leu	Pro	Asp	Asn	Glu	Val	Glu	Leu	Lys
			325						330					335	
Ala	Phe	Val	Ala	Pro	Ala	Pro	Pro	Val	Glu	Thr	Thr	Tyr	Asn	Tyr	Glu
		340						345					350		
Trp	Asn	Leu	Ile	Ser	His	Pro	Thr	Asp	Tyr	Gln	Gly	Glu	Ile	Lys	Gln
	355						360					365			
Gly	His	Lys	Gln	Thr	Leu	Asn	Leu	Ser	Gln	Leu	Ser	Val	Gly	Leu	Tyr
	370					375					380				
Val	Phe	Lys	Val	Thr	Val	Ser	Ser	Glu	Asn	Ala	Phe	Gly	Glu	Gly	Phe
385					390					395					400
Val	Asn	Val	Thr	Val	Lys	Pro	Ala	Arg	Arg	Val	Asn	Leu	Pro	Pro	Val
			405						410					415	
Ala	Val	Val	Ser	Pro	Gln	Leu	Gln	Glu	Leu	Thr	Leu	Pro	Leu	Thr	Ser
		420						425					430		
Ala	Leu	Ile	Asp	Gly	Ser	Gln	Ser	Thr	Asp	Asp	Thr	Glu	Ile	Val	Ser
	435						440					445			
Tyr	His	Trp	Glu	Glu	Ile	Asn	Gly	Pro	Phe	Ile	Glu	Glu	Lys	Thr	Ser
	450					455					460				
Val	Asp	Ser	Pro	Val	Leu	Arg	Leu	Ser	Asn	Leu	Asp	Pro	Gly	Asn	Tyr
465					470					475					480
Ser	Phe	Arg	Leu	Thr	Val	Thr	Asp	Ser	Asp	Gly	Ala	Thr	Asn	Ser	Thr
			485						490					495	
Thr	Ala	Ala	Leu	Ile	Val	Asn	Asn	Ala	Val	Asp	Tyr	Pro	Pro	Val	Ala
		500						505					510		
Asn	Ala	Gly	Pro	Asn	His	Thr	Ile	Thr	Leu	Pro	Gln	Asn	Ser	Ile	Thr
	515						520					525			
Leu	Asn	Gly	Asn	Gln	Ser	Ser	Asp	Asp	His	Gln	Ile	Val	Leu	Tyr	Glu
	530					535					540				
Trp	Ser	Leu	Gly	Pro	Gly	Ser	Glu	Gly	Lys	His	Val	Val	Met	Gln	Gly
545					550					555					560
Val	Gln	Thr	Pro	Tyr	Leu	His	Leu	Ser	Ala	Met	Gln	Glu	Gly	Asp	Tyr
			565						570					575	
Thr	Phe	Gln	Leu	Lys	Val	Thr	Asp	Ser	Ser	Arg	Gln	Gln	Ser	Thr	Ala
			580					585					590		
Val	Val	Thr	Val	Ile	Val	Gln	Pro	Glu	Asn	Asn	Arg	Pro	Pro	Val	Ala
		595					600					605			
Val	Ala	Gly	Pro	Asp	Lys	Glu	Leu	Ile	Phe	Pro	Val	Glu	Ser	Ala	Thr
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Leu	Asp	Gly	Ser	Ser	Ser	Ser	Asp	Asp	His	Gly	Ile	Val	Phe	Tyr	His
625					630					635					640
Trp	Glu	His	Val	Arg	Gly	Pro	Ser	Ala	Val	Glu	Met	Glu	Asn	Ile	Asp
			645						650					655	
Lys	Ala	Ile	Ala	Thr	Val	Thr	Gly	Leu	Gln	Val	Gly	Thr	Tyr	His	Phe
		660						665					670		
Arg	Leu	Thr	Val	Lys	Asp	Gln	Gln	Gly	Leu	Ser	Ser	Thr	Ser	Thr	Leu
		675					680					685			
Thr	Val	Ala	Val	Lys	Lys	Glu	Asn	Asn	Ser	Pro	Pro	Arg	Ala	Arg	Ala
	690					695					700				
Gly	Gly	Arg	His	Val	Leu	Val	Leu	Pro	Asn	Asn	Ser	Ile	Thr	Leu	Asp
705					710					715					720
Gly	Ser	Arg	Ser	Thr	Asp	Asp	Gln	Arg	Ile	Val	Ser	Tyr	Leu	Trp	Ile
			725						730					735	
Arg	Asp	Gly	Gln	Ser	Pro	Ala	Ala	Gly	Asp	Val	Ile	Asp	Gly	Ser	Asp
		740						745					750		
His	Ser	Val	Ala	Leu	Gln	Leu	Thr	Asn	Leu	Val	Glu	Gly	Val	Tyr	Thr
		755					760					765			
Phe	His	Leu	Arg	Val	Thr	Asp	Ser	Gln	Gly	Ala	Ser	Asp	Thr	Asp	Thr

770	775	780
Ala Thr Val Glu Val Gln Pro Asp Pro Arg Lys Ser Gly Leu Val Glu		
785	790	795
Leu Thr Leu Gln Val Gly Val Gly Gln Leu Thr Glu Gln Arg Lys Asp		800
	805	810
Thr Leu Val Arg Gln Leu Ala Val Leu Asn Val Leu Asp Ser Asp		815
	820	825
Ile Lys Val Gln Lys Ile Arg Ala His Ser Asp Leu Ser Thr Val Ile		830
	835	840
Val Phe Tyr Val Gln Ser Arg Pro Pro Phe Lys Val Leu Lys Ala Ala		845
	850	855
Glu Val Ala Arg Asn Leu His Met Arg Leu Ser Lys Glu Lys Ala Asp		860
865	870	875
Phe Leu Leu Phe Lys Val Leu Arg Val Asp Thr Ala Gly Cys Leu Leu		880
	885	890
Lys Cys Ser Gly His Gly His Cys Asp Pro Leu Thr Lys Arg Cys Ile		895
	900	905
Cys Ser His Leu Trp Met Glu Asn Leu Ile Gln Arg Tyr Ile Trp Asp		910
	915	920
Gly Glu Ser Asn Cys Glu Trp Ser Ile Phe Tyr Val Thr Val Leu Ala		925
	930	935
Phe Thr Leu Ile Val Leu Thr Gly Gly Phe Thr Trp Leu Cys Ile Cys		940
945	950	955
Cys Cys Lys Arg Gln Lys Arg Thr Lys Ile Arg Lys Lys Thr Lys Tyr		960
	965	970
Thr Ile Leu Asp Asn Met Asp Glu Gln Glu Arg Met Glu Leu Arg Pro		975
	980	985
Lys Tyr Gly Ile Lys His Arg Ser Thr Glu His Asn Ser Ser Leu Met		990
	995	1000
Val Ser Glu Ser Glu Phe Asp Ser Asp Gln Asp Thr Ile Phe Ser Arg		1005
	1010	1015
Glu Lys Met Glu Arg Gly Asn Pro Lys Val Ser Met Asn Gly Ser Ile		1020
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Arg Asn Gly Ala Ser Phe Ser Tyr Cys Ser Lys Asp Arg		1040
	1045	1050

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 <212> PRT
 <213> Homo sapiens

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Phe Pro Val Val Asp Cys Thr Ala Ala Cys Cys Asp Leu Ser Ser Cys
35 40 45
Asp Leu Ala Trp Trp Phe Glu Gly Arg Cys Tyr Leu Val Ser Cys Pro
50 55 60
His Lys Glu Asn Cys Glu Pro Lys Lys Met Gly Pro Ile Arg Ser Tyr
65 70 75 80
Leu Thr Phe Val Leu Arg Pro Val Gln Arg Pro Ala Gln Leu Leu Asp
85 90 95
Tyr Gly Asp Met Met Leu Asn Arg Gly Ser Pro Ser Gly Ile Trp Gly
100 105 110
Asp Ser Pro Glu Asp Ile Arg Lys Asp Leu Pro Phe Leu Gly Lys Asp
115 120 125
Trp Gly Leu Glu Glu Met Ser Glu Tyr Ser Asp Asp Tyr Arg Glu Leu
130 135 140
Glu Lys Asp Leu Leu Gln Pro Ser Gly Lys Gln Glu Pro Arg Gly Ser
145 150 155 160
Ala Glu Tyr Thr Asp Trp Gly Leu Leu Pro Gly Ser Glu Gly Ala Phe

675	680	685
Thr Val Ala Val Lys Lys Glu Asn Asn Ser Pro Pro Arg Ala Arg Ala		
690	695	700
Gly Gly Arg His Val Leu Val Leu Pro Asn Asn Ser Ile Thr Leu Asp		
705	710	715
Gly Ser Arg Ser Thr Asp Asp Gln Arg Ile Val Ser Tyr Leu Trp Ile		
725	730	735
Arg Asp Gly Gln Ser Pro Ala Ala Gly Asp Val Ile Asp Gly Ser Asp		
740	745	750
His Ser Val Ala Leu Gln Leu Thr Asn Leu Val Glu Gly Val Tyr Thr		
755	760	765
Phe His Leu Arg Val Thr Asp Ser Gln Gly Ala Ser Asp Thr Asp Thr		
770	775	780
Ala Thr Val Glu Val Gln Pro Asp Pro Arg Lys Ser Gly Leu Val Glu		
785	790	795
Leu Thr Leu Gln Val Gly Val Gly Gln Leu Thr Glu Gln Arg Lys Asp		
805	810	815
Thr Leu Val Arg Gln Leu Ala Val Leu Leu Asn Val Leu Asp Ser Asp		
820	825	830
Ile Lys Val Gln Lys Ile Arg Ala His Ser Asp Leu Ser Thr Val Ile		
835	840	845
Val Phe Tyr Val Gln Ser Arg Pro Pro Phe Lys Val Leu Lys Ala Ala		
850	855	860
Glu Val Ala Arg Asn Leu His Met Arg Leu Ser Lys Glu Lys Ala Asp		
865	870	875
Phe Leu Leu Phe Lys Val Leu Arg Val Asp Thr Ala Gly Cys Leu Leu		
885	890	895
Lys Cys Ser Gly His Gly His Cys Asp Pro Leu Thr Lys Arg Cys Ile		
900	905	910
Cys Ser His Leu Trp Met Glu Asn Leu Ile Gln Arg Tyr Ile Trp Asp		
915	920	925
Gly Glu Ser Asn Cys Glu Trp Ser Ile Phe Tyr Val Thr Val Leu Ala		
930	935	940
Phe Thr Leu Ile Val Leu Thr Gly Gly Phe Thr Trp Leu Cys Ile Cys		
945	950	955
Cys Cys Lys Arg Gln Lys Arg Thr Lys Ile Arg Lys Lys Thr Lys Tyr		
965	970	975
Thr Ile Leu Asp Asn Met Asp Glu Gln Glu Arg Met Glu Leu Arg Pro		
980	985	990
Lys Tyr Gly Ile Lys His Arg Ser Thr Glu His Asn Ser Ser Leu Met		
995	1000	1005
Val Ser Glu Ser Glu Phe Asp Ser Asp Gln Asp Thr Ile Phe Ser Arg		
1010	1015	1020
Glu Lys Met Glu Arg Gly Asn Pro Lys Val Ser Met Asn Gly Ser Ile		
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Arg Asn Gly Ala Ser Phe Ser Tyr Cys Ser Lys Asp Arg		
1045	1050	

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 <213> Artificial Sequence

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 <223> Primer

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 <212> DNA
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24

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23